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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,391	12/04/2000	Laurent Ouvry	199649US2PCT	8149

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

PHU, PHUONG M

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/701,391	Applicant(s) OUVRY ET AL.	
	Examiner Phuong Phu	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 6/30/04.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 10 recites the limitation "a plurality of channels". It is unclear whether this limitation refers to "processing channels", previously recited in claim 1. If so, it is suggest the limitation to be changed to --said processing channels--; otherwise, this limitation is not disclosed in the specification.

Claims, (if any) depended on above claim, are also rejected with the above reason.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "said signals" on line 2. This limitation is lack of antecedent basis.

Claims, (if any) depended on above claim, are also rejected with the above reason.

6. Claims 6-11 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

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Claims 6-8 omit functional/structural/connectional interrelationship of elements “processing circuit”, “delayed multiplication”, “channel estimation” with each other and/or with other elements (e.g., filter, recovery circuit, sliding correlator, etc.), claimed in claims 1 and 6, in order to make the claimed receiver as a complete connective and operative system. Such an omission renders the claims vague as following: it is unclear about the functional interrelationship of “delayed multiplication”, “channel estimation.

Claim 9 omits functional/structural/connectional interrelationship of element “decision circuit” with other elements (e.g., filter, recovery circuit, sliding correlator, etc.), claimed in claims 1 and 9, in order to make the claimed receiver as a complete connective and operative system.

Claim 10 omits functional/structural/connectional interrelationship of element “filter” with other elements (e.g., filter, recovery circuit, sliding correlator, etc.), claimed in claim 1, in order to make the claimed receiver as a complete connective and operative system.

Claim 19 omits functional/structural/connectional interrelationship of element “sliding correlator” with other elements (e.g., first channel, second channel, etc.), claimed in claims 12 and 19, in order to make the claimed receiver as a complete connective and operative system.

Claims, (if any) depended on above claims, are also rejected with the above reasons.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before

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November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Lomp et al (6,215,778).

-As per claim 1, see figures 13, 17 and 19, and col. 42, lines 16-49, col. 45, line 3 to col. 47, line 60, Lomp et al discloses a system comprising a plurality of channels for respectively receiving (PN1,..., PN9) wherein:

one of said channels, which receives (PN8), includes:

Adapted device (1711) (corresponding to limitation "filter"), adapted to a pseudorandom bin sequence (PN8) having been used for information symbols spectrum spreading (see also figure 19), and

recovery circuit (1701, 1702) (see figure 17) configured to produce a clock signal (PNCLK) (see col. 46, lines 10-13, 38-45 and col. 47, lines 35-41); and

the other channels receiving (PN1,..., PN4) wherein each includes a correlator device (DESPREADER) (corresponding to limitation "sliding correlator") working with one of another one of pseudorandom binary sequences (PN1,..., PN4) having been used for information symbols spectrum spreading, each correlator device being controlled by said clock signal produced by said recovery circuit (see col. 46, lines 10-13, 38-45 and col. 47, lines 35-41).

-As per claim 2, Lomp et al discloses that said adapted device is a device with coefficients (PCI, PCQ) adapted to the pseudorandom binary sequence (PN8) (see figures 17 and 19, and col. 46, lines 30-35).

-As per claim 3, Lomp et al discloses that said adapted device processes signals corresponding to spread spectrum information symbol streams (see figure 19).

-As per claim 4, Lomp et al discloses that said adapted device maintains said clock signal controlling said correlator device (see figure 17).

-As per claim 5, Lomp et al discloses that said adapted device maintains said clock signals permanently (see figure 17).

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-As per claim 6, Lomp et al discloses that each of said other channels further comprises a processing circuit (ROTATE COMIBINE) (see figure 17) .

-As per claim 7, Lomp et al discloses that said processing circuit performs multiplications (see figures 7, 6 and 17).

-As per claim 8, Lomp et al discloses that said processing circuit comprises means (1724) performing a channel estimation (see (figures 6, 7 and 17, and col. 45, lines 35-43).

-As per claim 9, Lomp et al discloses that said channels comprises decision circuits (1713,..., 1716).

-As per claim 10, Lomp et al discloses that each of channels (PN1,..., PN4) including an adapted device (1703,..., 171706) adapted to one of pseudorandom binary sequences (PN1,..., PN4).

-As per claim 11, Lomp et al discloses code generator (1304) (see figure 17) which inherently produces clock signals, each for each means (1703,..., 1706) in said channels and synchronous to one another, namely, offset relative to one another.

-As per claim 12, see figures 13, 17 and 19, and col. 42, lines 16-49, col. 45, line 3 to col. 47, line 60, Lomp et al discloses a system comprising:

a first channel (PN8, 1711, 1701, 1702) (see figure 17) configured to process a first signal (I, Q) (see figure 19) and to recover a clock signal (PNCLK) from said first signal (see col. 47, lines 35-41) ;

a second channel (PN1, 1703, 1304) configured to process a second signal (outputted from means (1710), said second channel being controlled by said clock signal recovered by said first channel, said second channel being free of a clock signal recovering circuit. (see figure 7, and col. 47, lines 35-41).

-As per claim 13, Lomp et al discloses that said first channel maintains said clock signal (see figure 17).

-As per claim 14, Lomp et al discloses that said first channel maintains said clock signal permanently (see figure 17).

-As per claim 15, Lomp et al discloses that a spectrum of said first and second signals is spread using sequences (PN1, PN8) (see figure 17).

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-As per claim 16, Lomp et al discloses that said sequences are PN sequences (PN1, PN8) (See figure 17).

-As per claim 17, Lomp et al discloses that said first channel includes an adapted device (1711) adapted to a first sequence (PN8) (see figures 17 and 19).

-As per claim 18, Lomp et al discloses that said adapted device has coefficients (PCI, PCQ) adapted to said first sequence (see figure 19).

-As per claim 19, Lomp et al discloses that said second channel includes a correlator device (1730) (see figure 17).

-As per claim 20, Lomp et al discloses that the system comprises a third channel (1401) which process a third signal (inputted to means (1401) to recover a second clock signal (RXPNCCLK) from said third signal (see figures 14, 17 and col. 46, lines 10-13).

-As per claim 21, Lomp et al discloses that said clock signal and said second clock signal are synchronized to each other (see col. 46, lines 10-13, 38-45 and col. 47, lines 35-41), namely, said clock signal and said second clock signal are inherently offset relative to each other.

-As per claim 22, Lomp et al discloses that said signals corresponding to CDMA signals (see figure 17).

Response to Arguments

9. Applicant's arguments filed on 6/30/04 have been fully considered but they are not, in part, persuasive.

The objection to the Drawings has been withdrawn since the Drawings were amended to overcome the objection.

The objection to the Specification has been withdrawn since the Specification was amended to overcome the objection.

Applicant's arguments with respect to the rejection to claim 1, under 35 USC 102 as being anticipated by Kaufmann et al, have been considered, the rejection is now withdrawn. However, upon further consideration, the claim, after being amended, is not allowable with reasons set forth above in this Office Action.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Phuong Phu
Primary Examiner
Art Unit 2631

Phuong Phu
Phuong Phu
11/5/04

PHUONG PHU
PRIMARY EXAMINER